



Massachusetts  
Department  
of  
ENVIRONMENTAL  
PROTECTION

# f a c t s h e e t

## 2001 Toxics Use Reduction Information Release August 2003

In August 2003, the Department of Environmental Protection (DEP) issued its annual report for 2001 on the use of toxic chemicals in Massachusetts. This report shows that since the Commonwealth enacted the Toxics Use Reduction Act in 1989, major chemical-using facilities have dramatically reduced their reliance on toxic chemicals, making Massachusetts a national leader in reductions in toxic chemical use and waste.

In 2001, 676 facilities reported the use of 192 listed toxic substances under the Toxics Use Reduction Act (TURA). These facilities fell within certain standard industrial classification (SIC) codes, had ten or more full-time employees, and used listed toxic substances at or above reporting thresholds. These facilities reported that they:

- used nearly 1.3 billion pounds of toxic substances (down from 1.4 billion pounds in 2000),
- generated 113 million pounds of byproduct or waste (down from 128 million pounds in 2000),
- shipped 377 million pounds of toxics in or as products (down from 424 million pounds in 2000),
- released 9 million pounds of toxics to the environment (down from 11 million pounds in 2000), and
- transferred 35 million pounds of toxics off-site for further waste management (down from 42 million pounds in 2000).

The reported data shows that very little chemical manufacturing occurred in Massachusetts (only 6% of total use), and a significant amount of this chemical manufacture was incidental to some other industrial process (e.g., acid gases created from fuel combustion at power plants). Most of the reported chemicals used (about 68%) were incorporated into a product (such as plastics, paints, automotive parts, etc.). About 26% of chemical use was attributed to uses ancillary to production processes, such as parts cleaning and waste treatment.

In 1989, the TURA legislation set a goal of reducing toxic byproduct generation by 50%, which was met in 1998. This goal is measured by using data normalized for changes in production that is reported by a core group of industries that have been subject to reporting since the base year of 1990 (this data excludes trade secret data). In 2001, the core group comprised 323 facilities and used 583 million pounds, or 53% of the total toxic chemicals reported (i.e., 1.1 billion pounds excluding trade secret data). From 1990 to 2001 these facilities reduced:

- toxic byproducts by 69%,
- toxic chemical use by 45%,
- quantities of toxics shipped in product by 60%,
- on-site releases of toxics to the environment by 92%, and
- transfers of toxics off-site for further waste management by 58%.

The 2001 report contains data on persistent bioaccumulative toxic (PBT) chemicals, such as polycyclic aromatic compounds, mercury, dioxins, and polychlorinated biphenyls (PCBs), reportable since 2000. Effective reporting year 2001, lead and lead compounds were classified as PBTs, and the reporting thresholds were lowered to 100 pounds.

PBT chemicals are of special concern because they are highly toxic and they remain in the environment for long periods of time, are not readily destroyed, and build up in the food chain. Most of the PBT use reported for 2001 was due to the presence of PBTs as impurities in materials used (such as polycyclic aromatic compounds contained in fuel oils). Due to the lower reporting threshold for lead and lead compounds, the number of facilities filing for lead increased from 15 to 135, and the number filing for lead compounds increased from 32 to 115.

TURA requires reporting facilities to develop toxics use reduction plans that identify and evaluate opportunities to reduce the use of toxics and the generation of toxic byproducts. These plans must be updated every two years and approved by a state-certified toxics use reduction planner.

In addition to DEP's administration of reporting and planning requirements, the TURA program is supported by the Office of Technical Assistance (OTA) and the Toxics Use Reduction Institute (TURI). OTA provides non-regulatory technical assistance to facilities seeking to reduce the use of toxics, develops fact sheets and other technical guidance documents, supports the development of technology solutions by leveraging state and federal funding, and creates market based incentives for qualifying TURA filers. TURI provides toxics use reduction education, training, and library services; supports research on cleaner materials and processes; and operates a laboratory for testing non-toxic or less-toxic cleaning alternatives.

DEP's 2001 toxics use reduction report is available at [www.mass.gov/dep/bwp/dhm/tura](http://www.mass.gov/dep/bwp/dhm/tura). This report complements the report published annually by the U.S. Environmental Protection Agency (EPA) under the Toxics Release Inventory (TRI) program. While the TURA report focuses on chemical use and byproducts, the TRI report focuses on releases to the environment and other waste management activities. The 2001 TRI report is available at [www.epa.gov/tri](http://www.epa.gov/tri).

Both DEP's TURA report and EPA's TRI report contain important chemical information that is useful to the public, government, and industry. However, it is important to note that the data in these reports is collected only from facilities within certain industrial sectors that have ten or more full-time employees and that use chemicals above established reporting thresholds. Therefore, these reports do not provide a complete picture of the use and release of all chemicals. In addition, these reports do not contain information about exposures of the public to reported chemicals.

For further information, please visit the web sites listed above, or call the DEP TURA program at 617-292-5982 or the EPA TRI Hotline at 1-800-424-9346.

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